REMARKS

This Amendment is responsive to the Office Action dated October 27, 2003.

Claims 1-14, 16-33 and 35-42 were pending in the application. In the Office Action, claims 1-14, 16-33 and 35-42 were rejected. In this Amendment, claims 2-5, 8, 21-25 and 27 have been canceled, and claims 1, 7, 9, 20, 26 and 28 have been amended. Claims 1, 6, 7, 9-14, 16-20, 26, 28-33 and 35-42 thus remain for consideration.

Applicant submits that claims 1, 6, 7, 9-14, 16-20, 26, 28-33 and 35-42 are in condition for allowance and requests reconsideration and withdrawal of the rejections in light of the following remarks.

§103 Rejections

Claims 1-4, 8-14, 16, 19-23, 27-30, 33, 35 and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over Veltman (WO 94/30014) in further view of Yamagishi et al. (U.S. Patent No. 5,535,008).

Claims 5 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Veltman and Yamagishi as applied to claims 1, 2, 4, 20 and 23, and further in view of Azadegan et al. (U.S. Patent No. 5,819,004).

Claims 17, 18, 36 and 37 were rejected under 35 U.S.C. §103(a) as being unpatentable over Veltman and Yamagishi as applied to claims 1 and 20, and further in view of Iwamoto et al. (U.S. Patent No. 5,974, 225).

Claims 39-42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Veltman and Yamagishi as applied to claims 1 and 20, and further in view of Azadegan.

Claims 6 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Veltman and Yamagishi as applied to claims 20 and 23, and further in view of Dieterich (U.S. Patent No. 6,100,940).

Claims 7 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Veltman and Yamagishi as applied to claims 1, 2, 20, 23 and 25, and further in view of Dieterich.

Claims 2-5, 8, 21-25 and 27 have been canceled, thereby rendering their rejections moot.

Applicant submits that the independent claims (claims 1 and 20) are patentable over the cited references of Veltman, Yamagishi, Azadegan, Iwamoto and Dieterich.

Applicant's invention as recited in the independent claims is directed toward a signal processor and signal processing method for compression encoding source data and concatenating the compressed source data with descriptive metadata. Each of the claims recites that the compression encoding operation is carried out such that the compressed data rate achieves a minimum rate, that the combined data rate of the concatenated compressed data and metadata does not exceed a predetermined maximum, and that the compressed data rate is set by controlling the quantisation of the encoded data.

Neither Veltman, Yamagishi, Azadegan, Iwamoto nor Dieterich discloses the data rate aspects of Applicant's invention. In particular, Applicant wishes to comment on the Veltman reference.

Although Veltman's page 40, line 20 through page 44, line 13, discloses an arrangement for concatenating a compressed data stream with an auxiliary information data stream, the compressed data stream is obtained by compressing fixed sized units of information with a varying compression ratio to provide varying sized units of the compression encoded data. The auxiliary information (metadata) is provided in units, which correspond to the units of the information compression coded. As disclosed, the information concatenation process and interleaving is controlled by emulating decoding of the bits stream using a hypothetical system target decoder, which includes a demultiplexer. The dividing of the compression encoded bit stream and the auxiliary information bit stream is controlled such that the information stream buffer and the auxiliary information buffer neither overflow nor underflow. This arrangement is different from that of the invention defined by Applicant's independent claims. There is no disclosure in the Veltman citation of influencing the compression-encoding algorithm to the effect of providing a predetermined minimum data rate for the compression encoded data. This is because, in part, the Veltman citation is directed to an arrangement for providing ancillary information to assist in the decoding of the compression encoded bit stream. In contrast, Applicant's invention is arranged to provide a data rate for metadata which is not related to the compression encoding process but describes the source information. Providing a predetermined minimum data rate in a compression encoded data stream and controlling the combined data rate to be restricted to a predetermined maximum provides a remaining data rate for the metadata. This remaining data rate varies between the minimum encoded data rate and the maximum total data rate. This provides an advantage in that metadata describing the content of the source data

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from which the compression encoding data is derived, can be provided within the concatenated data stream, but only to a degree which does not restrict a bandwidth available for compression encoding below a predetermined minimum.

Moreover, Veltman fails to disclose Applicant's scheme for setting the compressed data rate by controlling the quantisation of the encoded data. In this regard, the Examiner asserts that Veltman's page 16, lines 14-18, discloses "controlling the quantization of the encoded data representative of the source data to control the compressed data rate" (Office Action page 6, paragraph 3). However, close inspection of the cited portion of Veltman reveals that Veltman merely discloses that each picture of the video signal is compressed and subject to variable length coding. As the Examiner will appreciate, variable length coding does not imply or infer in any way the change in quantisation of the data representing the source data. "Variable length coding" is a term which is used to mean entropy coding such as Haffman encoding as used in the MPEG coding standard.

Since neither Veltman, Yamagishi, Azadegan, Iwamoto nor Dieterich discloses the data rate aspects of Applicant's invention, Applicant believes that claims 1 and 20 are patentable over Veltman, Yamagishi, Azadegan, Iwamoto and Dieterich – taken either alone or in combination – on at least this basis.

Claims 6, 7, 9-14 and 16-19 depend on claim 1. Since claim 1 is believed to be patentable over the cited references, claims 6, 7, 9-14 and 16-19 are believed to be patentable over the cited references on the basis of their dependency on claim 1.

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Claims 26, 28-33 and 35-42 depend on claim 20. Since claim 20 is believed to be patentable over the cited references, claims 26, 28-33 and 35-42 are believed to be patentable over the cited references on the basis of their dependency on claim 20.

Applicant respectfully submits that all of the claims now pending in the application are in condition for allowance, which action is earnestly solicited.

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

Statements appearing above with respect to the disclosures in the cited references represent the present opinions of the Applicant's undersigned attorney and, in the event that the Examiner disagrees with any such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the respective reference providing the basis for a contrary view.

If any issues remain, or if the Examiner has any further suggestions, he/she is invited to call the undersigned at the telephone number provided below.

The Examiner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account No. 50-0320.

The Examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,

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